

primaries of which it bears sufficient resemblance to make it highly probable that the bird itself is a member of that superb genus. This interesting feather is, in all probability, a primary from the right wing; and the chief points in which it differs from those of the known species are as follows:—

An elongated space of chocolate-colour, dotted with white, ornaments the narrow as well as the broad web of the feather. The tooth-like markings on the narrow web, close to the shaft, are very boldly defined, the light spaces being of a pale ochre-yellow colour: these markings are separated from the chocolate patch on this web by a narrow strip of pale yellowish brown. The dark spots outside of the chocolate spaces are similar on both webs; and there is no plain space bordering the inner web, the ground-colour of which is darker and more reddish than in the known species. Besides the above-mentioned differences, this feather is much smaller than the corresponding ones of *giganteus*, having the shaft much more slender and of a blackish colour, instead of the beautiful blue of that species. The shaft has the remarkable peculiarity of being extremely narrow on its upper side, so that a section of it would appear almost triangular. The length of the specimen is 9 inches; but it has been injured, a portion having been broken off both ends; if perfect, it would probably measure 12 inches.

A few feathers which exist in the museum of the Jardin des Plantes at Paris have been attributed to an unknown *Argus*; and it is quite possible that the feather now under notice may belong to that species.

The drawing on the wood not having been reversed, the impression from it is a representation of a feather from the left wing instead of the right. I may also state that the light spots close to the shaft of the feather of *A. giganteus* have been engraved too white.

In conclusion, I propose the specific name of *bipunctatus* for the bird of whose existence this feather is the indisputable proof, the white dots on both webs distinguishing it at once from the known species.

I remain, Gentlemen,

Yours very truly,

T. W. WOOD.

London, June 22, 1871.

P.S. I have forgotten to state that in the recently described bird, *Argus Grayii*, the primaries are almost exactly like those of the old species.

Notes on Podocnemis unifilis. By Dr. J. E. GRAY, F.R.S. &c.

A freshwater Tortoise from Guiana was thus described in 1848:—

“*Podocnemis unifilis*, Trosch. n. s. (Schomburgk, Reise in Brit. Guiana, iii. p. 647).

“This Tortoise has much affinity to *P. expansa*, Wagl., and is distinguished principally by this, that it has only *one* short beard-

thread under the chin. The head is black and shows some white spots: of these, one is situated behind the nose, one on either side behind the eye, one on either side at the margin of the frontal plate, however, without a dark spot in its middle, a larger one on either side at the margin of the parietal plate close over the tympanum, and one below behind each lower-jaw branch. These spots are discernible in quite young animals.

Found by us common in Rupununi and Takutu. Their way of living agrees perfectly with that of *Peltocephalus Tracaya*; they belong also to the edible Tortoises of Guiana. Long. 10–12 inches."

Mr. Selater, in his list of accessions, Proc. Zool. Soc. 1871, p. 36, observes, "A small Tortoise of the genus *Podocnemis* from the Upper Amazons, purchased December 16th, and certainly referable to *P. unifilis* of Troschel (Schomb. Guian. iii. p. 647). Mr. Edward Bartlett, who has met with this species in the same district, informs me that his specimens of it in the British Museum have been referred to the young of *P. Dumeriliana*. This, I think, can hardly be correct. But I shall have some further remarks to make on this subject in some notes, which I have in preparation, on the Tortoises living in the Society's Gardens."

The place where *Podocnemis unifilis* was described had escaped me, so that I did not refer to it in my 'Supplement to the Catalogue of Shield Reptiles.' It is very true that there is a specimen in the Museum, purchased of Mr. Bartlett, which agrees with the description of *P. unifilis* above quoted, and which I have considered a young specimen of *Podocnemis Dumeriliana*, as it agrees with the other young specimens in the Museum in every particular. These young specimens have already been described as distinct species under the names of *Emys cayanensis*, Schweigger, *E. erythrocephala*, Spix, and also as *Hydraspis lata*, Bell, from a specimen formerly in the Zoological Gardens.

The character which M. Troschel seems to depend on as distinctive of his species, from the manner in which he underlines the words, and the name which he gives to it, viz. *P. unifilis* (that is, from having only *one beard* in the front of the chin), is, I believe, common to all the species of the family *Peltocephalidae*; at least it exists in all the Museum specimens (except one small specimen of *P. expansa*) of *Chelonemys Dumeriliana*, *Podocnemis expansa*, and *Bartlettia Pitipii*; and Cornalia mentions it as one of the characters of his *Podocnemis 6-tuberculata*, which is unknown to me. The single exception mentioned is in all respects like the other specimens; the two beards are quite close together in the front of the chin as if it were one beard slit down the centre, and not far apart as in all two-bearded Tortoises. The spots on the head are only found in young specimens, and disappear as the animal increases in age; therefore I think we may decide that *Podocnemis unifilis* is a synonym of *P. Dumeriliana* in the young state. And it is curious that so accurate an observer as Troschel should have overlooked this fact when he considered it a new species; but very likely he had no species of the family at his command. It is less excusable in Mr. Selater to make

the observation he has done, who is, by his own account, new to the study of Tortoises (see P. Z. S. 1870, p. 667), but who could have examined the extensive series of these animals in the Museum.

Sir Charles Schomburgk observes that "the flesh of the Tortoises of this family is fat, and the most savoury of any of the freshwater Tortoises."

Note on Testudo chilensis. By Dr. J. E. GRAY, F.R.S. &c.

Mr. Selater, who gives the name of "*Chilian Land-Tortoise*" to this species in his list of accessions, P. Z. S. 1870, p. 667, objects to my calling it *Testudo chilensis*, because there is a doubt of its being found on the west side of the Andes. Though his notes on this subject appear before my paper, which is printed in p. 706 of the same volume, it was sent to him before his observations were made. Mr. Selater declares all through his observations that the Tortoise observed by Burmeister, D'Orbigny, and others in South America is *Testudo stellata*, one of the most common Indian species, instead of *T. sulcata*, which is the species that these authors erroneously considered common to Africa and America.

Note on Dactylopora.*

A large quantity of materials, together with a careful study of many living and Tertiary species of *Dactylopora* (among them many from the Paris Eocenes and Mr. Karrer's remarkable *D. miocenica*), and Dr. Carpenter's publications, have materially assisted me in throwing some light on the Triassic forms. The only difficulty is to make generally intelligible the structure of minute organic forms (although giants among the Foraminifera) imbedded in limestones or dolomites, most of them imperfectly preserved, some of them mere casts, others with calcareous infiltrations taking the place of organic substance. The Triassic forms must undoubtedly be ranked among the genus *Dactylopora* in Dr. Carpenter's sense, analogous organisms occurring among the Eocene forms from Paris. These ancient species seem to be essentially characterized by the want of camerae (in the sense in which Dr. Carpenter uses this term), as merely canals in circular order, frequently grouped by two and two or by four and four, extend from a cylindrical cavity occupied by sarcodæ, towards the including, calcareous, compact tegument. Dr. Carpenter's "camerae," as they occur in living and in most of the Tertiary species, cannot, therefore, be admitted as chief generic characters, being evidently mere appendices to the chief sarcodæ-cylinder, and liable to complete obliteration in certain groups of forms.

Of the ancient forms a striking abundance and diversity are presented, admissible as specifically different, as they occur constantly and uniformly in alpine localities very distant from each other. English naturalists would perhaps recognize the whole series of

* From Dr. C. W. Gumbel's letter to Director Fr. von Hauer, dated Munich, April 23, 1871. Communicated by Count Marschall.